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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,077	09/09/2004	Christopher James Sullivan	033277-009	4425
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EXAMINER				
ELDRID, JOHN W				
ART UNIT		PAPER NUMBER		
3641				
NOTIFICATION DATE		DELIVERY MODE		
12/31/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/507,077

Applicant(s)SULLIVAN, CHRISTOPHER
JAMES**Examiner**

JOHN Woodrow ELDRED

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-69 is/are pending in the application.
- 4a) Of the above claim(s) 25-68 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-24 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09092004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The Abandonment mailed 10-3-07 has been withdrawn in view of the Response filed 9-27-07.
2. Applicant's election of species I in the reply filed on 9-27-07 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Merely pointing out the criteria for a proper restriction and noting that there must be a serious burden on the Examiner to require a restriction does not meet the requirements of pointing out errors in the restriction or show why there would not be a serious burden on the Examiner. Claims 25-68 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 20-24 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al (5,871,173) in view of Schoffl (3,861,627).

Frank et al disclose that it is known to have a towed body with a deployable drag cone, comprising a body 2; blades 4,5 pivotally attached to a sleeve 6; and deployment means including spring 11 which causes the blades to deploy into a drag cone. Frank et al fails to disclose the deployment means including a rearwardly moving support member with the blades pivotally attached and a ramp means to help deploy the blades in a forward

opening manner. Also means to lock the blades in place is not shown. Schoffl discloses an aerodynamic body comprising a body portion 1, 2; a support member 4 mounted on the body an movable rearwardly on the body; a plurality of forward opening blades 5 pivotally mounted on the support member; and a deployment mechanism including spring 8, ramp means 3 for deploying the blades, and a locking means for locking the blades in the deployed position (column 2, lines 11-17). Motivation to combine is the mere substitution of known blade deployment means to perform the same basic function. To employ the teachings of Schoffl on the towed body of Frank et al and have the sliding support means, ramp means, forward opening blades, and locking means is considered to have been obvious to one having ordinary skill in the art.

In regard to claim 69, the locking means is not shown to be a snap ring. However, a locking pin on the support ring which engages a groove in the body is disclosed, so the use of a snap ring in place of the pin is considered an obvious substitution since they operate in exactly the same manner except a ring will provide greater locking strength since a ring will have more surface area engaged for locking than a pin.

In regard to claims 21-23, the "surface means" associated with, mounted on, or abutting the support member is considered to be anticipated by the inner surface of the support member.

In regard to claim 24, the "hub portion" reads over an arbitrary cylindrical portion of the support means since there is no structural limitation claimed to define over such a reading, and the entire support means is releasably mounted on the body.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN Woodrow ELDRED whose telephone number is (571)272-6901. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Woodrow Eldred/
Primary Examiner
Art Unit 3641

JWE